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10/578,499	10/02/2006	Simon Peter Knightley	127954	1722
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			CHOI, PETER Y	
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			1794	
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## Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

OfficeAction25944@oliff.com jarmstrong@oliff.com

## Application No. Applicant(s) 10/578,499 KNIGHTLEY ET AL. Office Action Summary Examiner Art Unit PETER Y. CHOI 1794 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 22 December 2009. 2a) ☐ This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 11.13 and 16-19 is/are pending in the application. 4a) Of the above claim(s) 18 and 19 is/are withdrawn from consideration. 5) Claim(s) \_\_\_\_\_ is/are allowed. 6) Claim(s) 11.13.16 and 17 is/are rejected. 7) Claim(s) \_\_\_\_\_ is/are objected to. 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10)⊠ The drawing(s) filed on <u>05 May 2006</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some \* c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). \* See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date.

Paper No(s)/Mail Date

Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)

5) T Notice of Informal Patent Application

6) Other:

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#### DETAILED ACTION

#### Continued Examination Under 37 CFR 1.114

 A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on December 22, 2009, has been entered.

## Claim Rejections - 35 USC § 112

- The following is a quotation of the first paragraph of 35 U.S.C. 112:
  - The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
- 3. Claims 11, 13, 16, and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claims 11, 13, 16, and 17, claim 11 recites that the first layer is held in a substantially fixed position on top of the second layer without an intervening layer between the first and second layers. Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. Applicants' specification as originally filed does not disclose

that a layer is necessarily absent between the first and second layers. Therefore, Applicants' specification does not appear to disclose that the first layer is held in a substantially fixed position on top of the second layer without an intervening layer between the first and second layers.

## Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
  obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- Claims 11, 13, 16, and 17 are rejected under 35 U.S.C. 103(a) as obvious over WO
   02/39857 to Reynolds in view of USPN 5,870,785 to Hoorens, USPN 2,774,127 to Secrist and USPN 5,472,458 to Ogawa.

Regarding claims 11, 13, 16, and 17, Reynolds teaches a mat for reducing the disturbance of particulate matter by wind, the mat including a first wind permeable layer of mesh material and a second wind permeable layer of mesh material, wherein the first layer is held in a substantially fixed position on top of the second layer without an intervening layer between the first and second layers, and the first layer is attached to the second layer in a peripheral region (see entire document including pages 1-6).

Regarding claims 11, 13, 16, and 17, the prior art is silent as to the type of material comprising the mesh material, the spacing between the layers, the stitch length, and the porosity.

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However, since the material is a mesh material, the mesh material necessarily comprises a type of mesh material. Similarly, the layers necessarily comprise a separation distance and a porosity, and, based on the type of mesh material, a stitch length. Therefore, it would have been necessary and therefore obvious to look the prior art for conventional characteristics of mesh material.

Hoorens teaches a substantially similar mat suitable for use on a ground comprising multiple layers of plastic mesh material wherein the layers are separated by a distance of between 0.1 and 1 cm, and wherein the mesh material is a knitted mesh material (Hoorens, column 1 line 4 to column 4 line 16, claims 1-20). Hoorens teaches that the mesh may have a cross-section of 0.5 mm to 10 mm, to at least allow for the flow of air. It should be noted that it naturally flows from the teachings of Hoorens that the knitted mesh material necessarily comprises an average stitch length. Additionally, it is reasonable for one of ordinary skill in the art to associate a mesh size with a pore size, and it is reasonable for one of ordinary skill in the art to expect that optimizing the stitch length further influences the mesh size or pore size in the final product, which the prior art teaches is necessarily porous.

As additional evidence, Secrist is classified in the same field in the art as Hoorens, and teaches a similar open-mesh knitted textile material comprising plastic fibers, wherein the material has 8 courses per inch, which is known in the art to be substantially similar and/or identical to stitch length in knitted materials (Secrist, column 1 line 15 to column 2 line 71, column 3 lines 1-31, column 5 lines 14-49, Examples 1-10). Secrist teaches that a material having such specifications is flexible with a relatively high initial resistance to deformation, and has strength, elastic conformability, and capacity for stress distribution suitable for use in plastic laminates. It would have been obvious to one of ordinary skill in the mat art at the time the

invention was made to form the mat of the prior art, wherein the mesh layers comprise the knitted mesh layers having the stitch lengths as taught by Hoorens and Secrist, motivated by the desire of forming a conventional multilayered plastic mesh mat with a mesh type and a corresponding stitch length known in the art to be predictably suitable for use in multilayered plastic meshes, such that the resulting mat is flexible with a relatively high initial resistance to deformation, and has strength, elastic conformability, and capacity for stress distribution suitable for use in multilayered plastic meshes.

Additionally, the prior art teaches that the particulate matter is retained between the first and second layer. Therefore, it is reasonable for one of ordinary skill in the art to expect that the distance between the first and second layer may be optimized based on the size of the particulate matter desired to be allowed to pass through one layer but retained between the layers, and the desired flow of air. Additionally, USPN 5,472,458 to Ogawa is cited to show that sand particles are known in the art as having a particle size of 2 mm or less (see for example Ogawa, column 2 line 28 to column 4 line 25, claim 1). Therefore, it naturally flows from the teachings of the prior art that if the particulate matter is retained between the first and the second layer, and the particulate matter is known in the art as having a particle size of 2 mm or less, then the mat of the prior art inherently has a distance between the layers of at least about 2 mm. Additionally and/or alternatively, it would have been obvious to one of ordinary skill in the multilayer mat art at the time the invention was made to form the multilayered mat of the prior art, wherein the separation of the layers are adjusted such as at a distance of at least about 2 mm or between 0.1 and 1 cm, as the prior art suggests that particulates such as sand comprise a size of 2 mm or less and that a separation distance between 0.1 and 1 cm allows the desired flow of air, and motivated by the

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desire of forming a conventional multilayered mat having a desired distance between the layers based on the size of the particulate matter desired to be allowed to pass through one layer but retained between the layers, and the desired flow of air.

Regarding claims 11, 13, 16, and 17, the prior art does not appear to specifically teach that each layer of mesh material has the claimed porosity, the porosity being the proportion of surface area of the mesh material which consists of holes rather than fibers. However, the prior art teaches that each layer of mesh material necessarily comprises pores, and that it was known to form mesh having a cross-section of 0.5 mm to 10 mm. Therefore, it would have been obvious to one of ordinary skill in the knitted mat art at the time the invention was made to form the knitted mat of the prior art, wherein the porosity of the mesh material is optimized to between 10% and 50%, as the mat necessarily comprises a variable mesh cross-section and porosity, and motivated by the desire of forming a conventional mat with a porosity suitable for the desired mesh cross-section and for the intended application.

Regarding claims 11, 13, 16, and 17, the prior art does not appear to specifically teach that each layer of the mesh material has a wind attenuation factor of between 40% and 80% for wind directed at right angles onto the mesh material at 50 km/h, based on the average stitch length, the average separation, and the porosity of the first and second mesh layers. However, it should be noted that Applicants do not define wind attenuation factor and wind attenuation factor does not appear to be a property known and/or established in the art. Additionally, Applicants' specification discloses that the wind attenuation factor of the *mat* will depend on a number of factors, including the smoothness of the fibers, the size of individual holes, and the porosity (emphasis added). Applicants' specification does not appear to teach what factors are

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determinative as to the wind attenuation factor of each layer. It should be noted that Applicants' specification does not appear to teach that the type of construction (i.e. mesh vs. woven) nor that the distance between the layers necessarily affects the wind attenuation factor of each layer. The prior art teaches that each layer of material comprises first and second plastic mesh layers of varying size and shape, allowing sand to pass through. Additionally, it is reasonable for one of ordinary skill in the art to associate a mesh size with a pore size, since prior art teaches that the material is necessarily porous as evident in the ability of the material to allow sand to pass through. Therefore, although the prior art does not appear to specifically teach the claimed wind attenuation factor, it is reasonable for one of ordinary skill in the art to expect that the claimed property naturally flows from the teachings of the prior art, as the prior art teaches a substantially similar structure and composition as the claimed invention. Products of identical structure can not have mutually exclusive properties. The burden is on Applicants to prove otherwise.

Additionally, it would have been obvious to one of ordinary skill in the mat art at the time the invention was made to form the mat of the prior art, wherein the wind attenuation factor of each layer is adjusted as claimed, as each layer necessarily comprises a variable mesh cross-section and porosity, and motivated by the desire of forming a conventional mat with a porosity suitable for the desired mesh cross-section and for the intended application.

Additionally, the recitation that the mat reduces the disturbance of particulate matter by wind created during the landing of a helicopter on the mat when the mat is placed on the particulate matter, is recited in the preamble of the claim. A preamble is generally not accorded any patentable weight where it merely recites the purpose or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the

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structural limitations are able to stand alone. Since the prior art teaches a substantially similar structure and composition as the claimed invention, the prior art appears to render obvious the claimed invention.

Regarding claims 13, the prior art teaches that the mesh material is formed from plastics fibers (Reynolds, pages 1-6; Hoorens, column 3 lines 37-64).

Regarding claims 16 and 17, Reynolds teaches a mat including one or more mats (pages 1-6). Although the prior art does not specifically teach that the peripheral region has a greater mass per unit area than the combined mass per unit area of each layer of the mesh material, it is reasonable for one of ordinary skill in the art to expect that such a characteristic is inherent to the prior art since the prior art teaches that the perimeter comprises an additional material to secure the layers at the perimeter, and since the prior art teaches a substantially similar structure and composition as the claimed invention. Additionally, it would have been obvious for one of ordinary skill in the art to form the mat of the prior art wherein the peripheral region has a greater mass per unit area than the combined mass per unit area of each layer of the mesh material, as it naturally flows from the prior art that the mat is suitable to be used on various surfaces such as the ground and as a ground cover for a camper, and that it is a desired characteristic of the mat for the peripheral region to have a greater mass per unit area than the mesh material such that the mat is anchored to the ground and has less tendency to be affected by various environmental factors, when used in the desired application.

Regarding claims 16 and 17, the prior art does not appear to specifically teach that the mat is a helicopter landing mat and that the mat has a length and a width which exceed the rotor span of a helicopter. However, Applicants are not literally claiming a helicopter in conjunction

with the claimed mat and the prior art mat necessarily has a length and a width. Therefore, a reference to the mat as a helicopter landing mat and a reference to a length and width which exceed the rotor span of a helicopter appear to be a recitation of the intended use of the mat. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Since the prior art teaches a substantially similar structure and composition as the claimed invention, the prior art appears to be capable of performing the intended use. Additionally, Reynolds teaches that the mat may be of any convenient size and shape, and can be extended (Reynolds page 5). It would have been obvious to one of ordinary skill in the mesh mat art at the time the invention was made to form the mesh mat of the prior art, wherein the size of the mat is adjusted for various applications, as taught by Reynolds, motivated by the desire of forming a conventional mesh mat having a desired size predictably suitable for various applications.

#### Response to Arguments

6. Applicants' arguments filed December 22, 2009, have been fully considered but they are not persuasive. Preliminarily, it should be noted that the current rejection is based on the prior art combination of Reynolds in view of Hoorens, Secrist, and Ogawa. To the extent that Applicants' arguments still apply, they will be addressed. Applicants argue that there is no substantial reason why a person of ordinary skill in the art would look to a specification that describes textile materials able to be used in clothing and domestic goods. Examiner respectfully

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disagrees. Under 35 U.S.C. 103 (a), the obviousness of an invention cannot be established by combining the teachings of the prior art references absent some teaching, suggestion, incentive, or predictability supporting the combination. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPO 929, 933 (Fed. Cir. 1984); KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, 1395-97 (2007). This does not mean that the cited prior art references must specifically suggest making the combination, B.F. Goodrich Co. M Aircraft Braking Systems Corp., 72 F.3d 1577, 1582, 37 USPQ2d 1314, 1318 (Fed. Cir. 1996); In re Nilssen, 851 F.2d 1401, 1403, 7 USPO2d 1500, 1502 (Fed. Cir. 1988)). A suggestion or motivation to combine references is an appropriate method for determining obviousness, however it is just one of a number of valid rationales for doing so. The test for obviousness is what the combined teachings of the prior art references would have suggested to those of ordinary skill in the art. In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); In re Keller, 642 F.2d 413, 425, 208 USPO 871, 881 (CCPA 1981). This test requires us to take into account not only the specific teachings of the prior art references, but also any inferences which one skilled in the art would reasonably be expected to draw therefrom. In re Preda, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

As set forth above, since the prior art is silent as to the type of material comprising the mesh material, the spacing between the layers, the stitch length, and the porosity, it would have been necessary and therefore obvious to look the prior art for conventional characteristics of mesh material. Hoorens teaches a substantially similar mat suitable for use on a ground comprising multiple layers of plastic mesh material wherein the layers are separated by a distance of between 0.1 and 1 cm, and wherein the mesh material is a knitted mesh material

(Hoorens, column 1 line 4 to column 4 line 16, claims 1-20). Both the prior art and Hoorens are directed to mats which are laid on a surface. Hoorens teaches that the mesh may have a crosssection of 0.5 mm to 10 mm, to at least allow for the flow of air. It should be noted that it naturally flows from the teachings of Hoorens that the knitted mesh material necessarily comprises an average stitch length. Additionally, it is reasonable for one of ordinary skill in the art to associate a mesh size with a pore size, and it is reasonable for one of ordinary skill in the art to expect that optimizing the stitch length further influences the mesh size or pore size in the final product, which the prior art teaches is necessarily porous. Therefore, it would have been obvious to one of ordinary skill in the mat art at the time the invention was made to form the mat of the prior art, wherein the mesh layers comprise the knitted mesh layers as taught by Hoorens, motivated by the desire of forming a conventional multilayered plastic mesh mat with a mesh type known in the art to be predictably suitable for use in multilayered plastic meshes, such that the resulting mat is flexible with a relatively high initial resistance to deformation, and has strength, elastic conformability, and capacity for stress distribution suitable for use in multilayered plastic meshes.

Applicants argue that any combination of the three references would not yield a mat with the defined specifications, such that the overall wind attenuation factor is not inherent in the structure of any of the applied art devices. Additionally, Applicants argue that the claimed mat does not teach the intermediary or separating layer of Hoorens, and that the average separation between the first and the second layer results from the properties of the mesh material and the construction of the mat, essentially creating a three-dimensional mesh, which is clearly not possible in the mat described in Hoorens.

Regarding Applicants' arguments, Examiner respectfully disagrees. It should be noted that the current rejection is not based on three references, but Reynolds in view of Hoorens, Secrist, and Ogawa. Therefore, Applicants' arguments are not commensurate in scope with the current rejection. Additionally, a three-dimensional mesh is neither claimed nor defined, such that the claimed invention necessarily comprises the claimed three-dimensional mesh and such that the prior art is necessarily required to teach a three-dimensional mesh. Additionally, since the prior art combination teaches a mesh, such as a knitted mesh material, the prior art combination appears to comprise a three-dimensional structure within the scope of Applicants' arguments.

Additionally, Applicants have not shown that the prior art combination is necessarily not combinable, and that the prior art combination necessarily does not comprise the claimed characteristics, such as the claimed wind attenuation factor, even though the invention of the prior art comprises a substantially similar structure and composition as the prior art.

Reynolds teaches a substantially similar structure and composition as the claimed invention (a mat comprising first and second mesh layers which are substantially fixed on one another without an intervening layer, wherein each of the layers comprise plastic fibers and wherein the layers are attached to each other in a peripheral region). However, the prior art is silent as to the type of material comprising the mesh material, the spacing between the layers, the stitch length, and the porosity. Additionally, since the material is a mesh material, the mesh material necessarily comprises a type of mesh material. Similarly, the layers necessarily comprise a separation distance and a porosity, and, based on the type of mesh material, a stitch

length. Therefore, it would have been necessary and therefore obvious to look the prior art for conventional characteristics of mesh material.

As set forth above and not repeated here, the prior art combination appears to render obvious the claimed invention. Therefore, it is reasonable for one of ordinary skill in the art to expect that the claimed property naturally flows from the teachings of the prior art, as the prior art teaches a substantially similar structure and composition as the claimed invention. Products of identical structure can not have mutually exclusive properties. The burden is on Applicants to prove otherwise. Additionally, it would have been obvious to one of ordinary skill in the mat art at the time the invention was made to form the mat of the prior art, wherein the wind attenuation factor of each layer is optimized as claimed, as each layer necessarily comprises a variable mesh cross-section and porosity, and motivated by the desire of forming a conventional mat with a porosity suitable for the desired mesh cross-section and for the intended application.

Applicants argue that Secrist describes a range of examples of textile sheets having various properties, but there is no teaching that any of the examples will be able to reduce the disturbance of particulate matter by wind created during the landing of a helicopter on the mat when the mat is placed on the particulate matter. Examiner respectfully disagrees. In response to Applicants' arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The current rejection is based on the combination of references and Secrist alone is not relied on to teach the claimed wind attenuation

factor. Therefore, Applicants' arguments are not commensurate in scope with the current rejection.

Additionally, the recitation that the mat reduces the disturbance of particulate matter by wind created during the landing of a helicopter on the mat when the mat is placed on the particulate matter, is recited in the preamble of the claim. A preamble is generally not accorded any patentable weight where it merely recites the purpose or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the structural limitations are able to stand alone. Since the prior art teaches a substantially similar structure and composition as the claimed invention, the prior art appears to render obvious the claimed invention.

Applicants argue that the Office Action has failed to establish any of the applied references inherently disclose the claimed wind attenuation factor. Examiner respectfully disagrees. As set forth above and not repeated here, the prior art combination appears to render obvious the claimed invention. Therefore, it is reasonable for one of ordinary skill in the art to expect that the claimed property naturally flows from the teachings of the prior art, as the prior art teaches a substantially similar structure and composition as the claimed invention. Products of identical structure can not have mutually exclusive properties. The burden is on Applicants to prove otherwise. Additionally, it would have been obvious to one of ordinary skill in the mat art at the time the invention was made to form the mat of the prior art, wherein the wind attenuation factor of each layer is optimized as claimed, as each layer necessarily comprises a variable mesh cross-section and porosity, and motivated by the desire of forming a conventional mat with a porosity suitable for the desired mesh cross-section and for the intended application.

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#### Conclusion

 It should be noted that USPN 6,742,203 to Reynolds is the US equivalent to the applied prior art WO02/39857. Since the current rejection appears to render the claimed invention

obvious over the prior art combination, and since the prior art was published more than one year

prior to the date of application for patent in the United States, a double patenting rejection is not

appropriate at this time.

8. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to PETER Y. CHOI whose telephone number is (571)272-6730.

The examiner can normally be reached on Monday - Friday, 08:00 - 15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

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